



**ENVIRONMENTAL ENGINEERING, INC**

6620 Owens Drive, Suite A • Pleasanton, CA 94588-3334  
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March 2, 2006

Ms. Darcy Bering  
Sonoma County Department of Env. Health  
3273 Airway Drive, Suite D  
Santa Rosa, California 95403

Subject: SCDHS-EHD Site #00002640  
3705 Gravenstein Highway South, Sebastopol, California

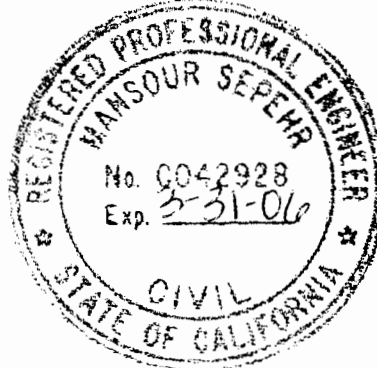
Dear Ms. Bering:

Enclosed for your review is a copy of SOMA's "Monitoring Well Installation" report for the subject property. This report has been uploaded to the State's GeoTracker database.

Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have any questions or comments.

Sincerely,

Mansour Sepehr, Ph.D., PE  
Principal Hydrogeologist



Enclosure

cc: Mr. Chris Ghanayem w/enclosure



ENVIRONMENTAL ENGINEERING, INC  
6620 Owens Drive, Suite A • Pleasanton, CA 94588-3334  
TEL (925)734-6400 • FAX(925)734-6401

## MONITORING WELL INSTALLATION

**Bill's Grocery and Deli  
3705 Gravenstein Highway South  
Sebastopol, California**

March 2, 2006

Project 2872

Prepared for

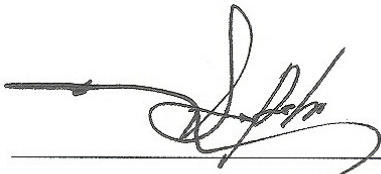
**Mr. Chris Ghanayem  
3705 Gravenstein Highway South  
Sebastopol, California**

Prepared by

**SOMA Environmental Engineering, Inc.  
6620 Owens Drive, Suite A  
Pleasanton, California**

## CERTIFICATION

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Mr. Chris Ghanayem, the responsible party of the property located at 3705 Gravenstein Highway South, Sebastopol, California. This report details SOMA's monitoring well installation, as proposed in SOMA's *Workplan for Monitoring Well Installation* (August 8, 2005), and approved by the Sonoma County Department of Health Services–Environmental Health Division in their letter *Re: Workplan for Monitoring Well Installation SCDHS–EHD Site #00002640* (September 14, 2005).



Mansour Sepehr, Ph.D., P.E.  
Principal Hydrogeologist



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## **1.0 INTRODUCTION**

On behalf of Mr. Chris Ghanayem, SOMA Environmental Engineering, Inc. (SOMA) has prepared this report documenting the investigation activities for the property located at 3705 Gravenstein Highway South, Sebastopol, California, hereby referred to as “the Site”. As proposed in SOMA’s workplan (August 8, 2005) and pursuant to the Sonoma County Department of Health Services–Environmental Health Division’s (SCDHS–EHD’s) approval (September 14, 2005), SOMA has prepared this report documenting the field activities of the off-site monitoring well installations at the subject property.

### **1.1 Site Description**

As shown in Figure 1, the Site is located north of Highway 116 and is within an area consisting of small commercial and rural residential properties. The Site is currently operating as a gasoline service station and convenient market known as Bill’s Grocery and Deli.

### **1.2 Previous Activities**

In March 1997, DHS Contractors and Touchstone Development removed three 10,000-gallon gasoline single-walled steel underground storage tanks (USTs), product lines, and the pump island from the Site. The fuel USTs showed no visible holes or damage upon inspection of the tanks after removal. SCDHS–EHD official John Anderson was present during the removal and sampling events.

During excavation groundwater stabilized at the 11-foot depth in the tank pit. Pit water was purged and transported to a water treatment facility. Groundwater samples were collected from groundwater that had recharged into the pit cavity. Soil samples were collected from the bottom of the excavation of the tank pit,

pump island, and product lines. Soil and groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, total xylenes (collectively referred to as BTEX), Methyl tertiary Butyl Ether (MtBE), and lead. Analytical results showed TPH-g and MtBE detected at 160 parts per million in the groundwater sample collected from the tank pit. MtBE was detected at 190 parts per billion in the soil sample collected from below the removed product line adjacent to the pump island.

Excavated soil was stockpiled on-site, sampled, and tested. Test results were non-detect for TPH-g, BTEX, and MtBE. The stockpiled soil was transported to an off-site receiving facility.

The Site has been monitored on a quarterly basis since December 2000. SOMA has conducted the monitoring events since 2004. Historically, the TPH-g and BTEX groundwater constituents have remained below the reporting laboratory limit. The MtBE groundwater constituent has either been at non-detectable laboratory levels or near non-detectable laboratory levels.

In March 2004, Jim Glomb Geotechnical and Environmental Consulting, of Sebastopol, California, installed five additional wells (MW-4 to MW-8) at the Site (Figure 2).

### **1.3 Regional Geology and Hydrogeology**

According to the U.S. Geological Survey (USGS) publication *Geologic Map of the Cotati 7.5' Quadrangle, Sonoma County, California*, modern stream channel deposits in active, natural stream channels consisting of loose alluvial sand, gravel, and silts comprise the subsurface terrain of the Site. In addition, the Site is mapped within a predominantly marine transitional horizon, comprised of

massive, well-sorted estuarine and aeolian sandstone, and nearshore marine and fluvial conglomerates.

During previous investigations, groundwater has been encountered at approximately 3 feet below ground surface (bgs). As seen in the groundwater elevation contour map (Figure 3) presented in SOMA's First Quarter Monitoring Report (2006), groundwater appears to flow approximately south/southwest.

## **2.0 SCOPE OF WORK**

The results of the previous site investigation indicated the potential presence of MtBE downgradient (south/southwest) of monitoring well MW-8. In addition, the results of the previous site investigation activities have not fully evaluated the off-site extent of the MtBE plume. Therefore, an additional investigation, which included the installation of off-site monitoring wells, was warranted by the SCDHS-EHD to address the off-site extent of the MtBE plume.

Pursuant to the SCDHS-EHD's approval (September 14, 2005) of SOMA's submitted workplan (August 8, 2005), the following describes the performed tasks in order to implement the scope of work:

- Task 1: Permit Acquisition, Health and Safety Plan Preparation, and Subsurface Utility Clearance**
- Task 2: Monitoring Well Installation**
- Task 3: Monitoring Well Development and Survey**
- Task 4: Laboratory Analysis and Results**

### **2.1 Permit Acquisition, Health and Safety Plan Preparation, and Subsurface Utility Clearance**

Prior to initiating field activities, SOMA obtained a drilling permit from the Sonoma County Department of Health Services (permit number 4835HMMW) and



a site access agreement from Ms. Ann E. Hazen, the property owner of 3790 Gravenstein Highway South, Sebastopol. A copy of the permit and site access agreement, with Ms. Hazen's signature, are included in Appendix A.

Before conducting the field activities, a site-specific health and safety plan (HASP) was prepared by SOMA. The HASP was designed to address safety provisions during field activities and protect the field crew from physical and chemical hazards resulting from drilling and sampling. The HASP established personnel responsibilities, general safe work practices, field procedures, personal protective equipment standards, decontamination procedures, and emergency action plans.

SOMA also contacted Underground Service Alert (USA) to clear the drilling areas of underground utilities. Following USA clearance, SOMA retained a private utility locator (Precision Locating) to survey the proposed drilling areas and locate any additional subsurface conduits that may have interfered with safe drilling operation.

## **2.2 Monitoring Well Installation**

On December 20, 2005, Gregg Drilling & Testing, Inc. (Gregg) installed monitoring well MW-9. On December 21, 2005, Gregg returned to the Site to install monitoring wells MW-10 and MW-11. However, due to the continuous, significant amount of rainfall the Sebastopol area received and was expected to receive, Gregg deemed access to the proposed drilling locations not viable. Therefore, the SCDHS-EHD and SOMA came to the decision that field activities should be resumed at a later date, whereupon effective drilling operations could be accomplished. Thus, on January 26, 2006, Gregg returned to the Site and installed monitoring wells MW-10 and MW-11.

The following is a brief description of the drilling procedures implemented to install the off-site monitoring wells at the Site:

Using hollow stem auger (HSA) drilling technology, the well boreholes were continuously sampled with an unlined sampler to approximately 25 feet below ground surface (bgs), with sampling commencing at 5 feet bgs. During the drilling operation, SOMA's field geologist verified the thickness of the saturated zone in each borehole. Representative bag samples of different soil units encountered were collected and volatile vapors of the samples were measured with a photo ionization detector (PID). The noted PID readings were recorded on the monitoring well borehole logs (Appendix B). Note, no soil samples were collected from any of the well boreholes due to the soil/groundwater interface not being differentiable.

After advancing the boreholes to the 25-foot depth, approximately 15 feet below first encountered groundwater, two-inch diameter well casings (schedule 40 polyvinyl chloride) were installed, with 0.01-inch perforated screens spanning 10 to 25 feet bgs. The drilling crew attached a PVC cap on the bottom of the casings without adhesives, and the tops of the casings were fitted with well plugs. After the screens and well risers were positioned, filter packs were emplaced into the annular space from the base of the wells to approximately one to two feet above the tops of the well screens. Note, the filter packs consist of 2/12 rounded silica sand.

After the filter packs set, the wells were sealed to ground surface. To protect the filter packs from the inclusion of grout, bentonite was placed approximately one to two feet above the tops of the filters. After hydrating the bentonite, the wells were sealed from the top of the bentonite to approximately one-foot bgs with neat cement grout. Near surface grade, well vaults (protective casings) and locking

well caps were installed to insure the monitoring wells would be protected from vandalism and/or accidental damage.

The monitoring well logs, showing the well construction details, are included in Appendix B.

### **2.3 Monitoring Well Development and Survey**

On February 3, 2006, SOMA field personnel conducted the development of the wells. The wells were bailed to remove fine-grained materials and then surged to develop the sand filter pack to improve the hydraulic efficiency, which is achieved when a large fraction of the fine materials from both the filter pack and aquifer material adjacent to the borehole no longer obstruct the well screen interval.

The wells were then pumped until groundwater quality parameter readings (pH, temperature and conductivity) were stable. Measurements of the groundwater quality parameters are recorded in the monitoring well development data sheets included in Appendix C. Note, development water from the wells is stored on-site in 55-gallon steel drums, pending transport to an off-site environmental wastewater receiving facility.

Upon developing the wells, groundwater samples were collected with a disposable bailer. Groundwater samples were decanted into 40-milliliter (mL) vials, pre-preserved with HCl, stored in an ice-filled cooler, and transported under chain-of-custody to a state certified laboratory for analysis. Analytical results are discussed in the following section (Section 2.4).

On February 22, 2006, Harrington Surveys Inc., a licensed land surveying company, subcontracted by SOMA, horizontally and vertically surveyed the casing elevations of the monitoring wells in accordance with coordinate values

based on the California Coordinate System (NAD-83 and NGVD-88). The survey report is included in Appendix D.

## **2.4 Laboratory Analysis and Results**

Groundwater samples were submitted to Pacific Analytical Laboratories (PAL), a certified laboratory by the California DHS. The samples were analyzed for the following constituents:

- Total petroleum hydrocarbons as gasoline (TPH-g)
- Benzene, toluene, ethylbenzene, total xylenes (collectively referred to as BTEX)
- Methyl tertiary Butyl Ether (MtBE)
- Gasoline oxygenates, consisting of tertiary Butyl Alcohol (TBA) Diisopropyl Ether (DIPE), Ethyl tertiary Butyl Ether (ETBE), Methyl tertiary Amyl Ether (TAME)
- Ethanol
- Lead Scavengers, consisting of 1,2-Dichloroethane (1,2-DCA) and 1,2-Dibromoethane (EDB)

As shown in Table 1, the only chemical constituent of concern identified was MtBE, which was detected at 0.91 and 0.92 parts per billion in MW-9 and MW-11, respectively. All other chemical constituents were below the laboratory detection limits. The laboratory analytical report is included as Appendix E.

Note, as previously mentioned (Section 2.2), no soil samples were collected from any of the well boreholes due to the soil/groundwater interface not being differentiable.

### **3.0 CONCLUSIONS AND RECOMMENDATIONS**

MtBE was the only chemical detected at slightly above the laboratory detection limits in the newly installed off-site monitoring wells. Despite the high mobility of MtBE in groundwater, MtBE has not significantly migrated beyond the property's boundaries.

SOMA recommends groundwater monitoring continue on a quarterly basis for a minimum of one year, and if the MtBE contamination levels do not significantly increase, regulatory closure be warranted with receipt of a No Further Action determination. As such, closure will ascertain that the Site has been evaluated using a risk-based approach and will also ensure that the residual contamination does not pose a risk to human health or the environment.

#### **4.0 REFERENCES**

Jim Glomb, Geotechnical and Environmental Consulting, April 28, 2004. "Re: Additional Groundwater Well Installation and Well Monitoring"

Sonoma County Department of Health Care Services, September 14, 2005. "Re: Workplan for Monitoring Well Installation SCD-EHD Site #00002640"

SOMA Environmental Engineering Inc., December 13, 2005. "Fourth Quarter 2005 Groundwater Monitoring Report"

SOMA Environmental Engineering Inc., August 8, 2005. "Workplan for Monitoring Well Installation"

U.S. Geological Survey (2002) *Geologic Map of the Cotati 7.5' Quadrangle, Sonoma County, California*

# Tables

**TABLE 1. Groundwater Analytical Results**

3705 Gravenstein Highway, Sebastopol, California

Sample Location	Sampling Date	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	Lead Scavengers (µg/L)
<b>MW-9</b>	2/3/2006	<50.0	<0.500	<2.00	<0.500	<1.00	<b>0.910</b>	<10.0	<0.500	<0.500	<2.00	<1,000	<0.500
<b>MW-10</b>	2/3/2006	<50.0	<0.500	<2.00	<0.500	<1.00	<0.500	<10.0	<0.500	<0.500	<2.00	<1,000	<0.500
<b>MW-11</b>	2/3/2006	<50.0	<0.500	<2.00	<0.500	<1.00	<b>0.920</b>	<10.0	<0.500	<0.500	<2.00	<1,000	<0.500

**Notes:**

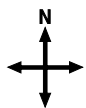
µg/L= micrograms per Liter (ppb= parts per billion)

&lt;= Results not detected at the reporting laboratory limit

Lead Scavengers= consisting of 1,2-Dichloroethane (1,2-DCA) and 1,2-Dibromoethane (EDB)



# Figures



approximate scale in feet  
0 70 140

Figure 1: Site vicinity map.

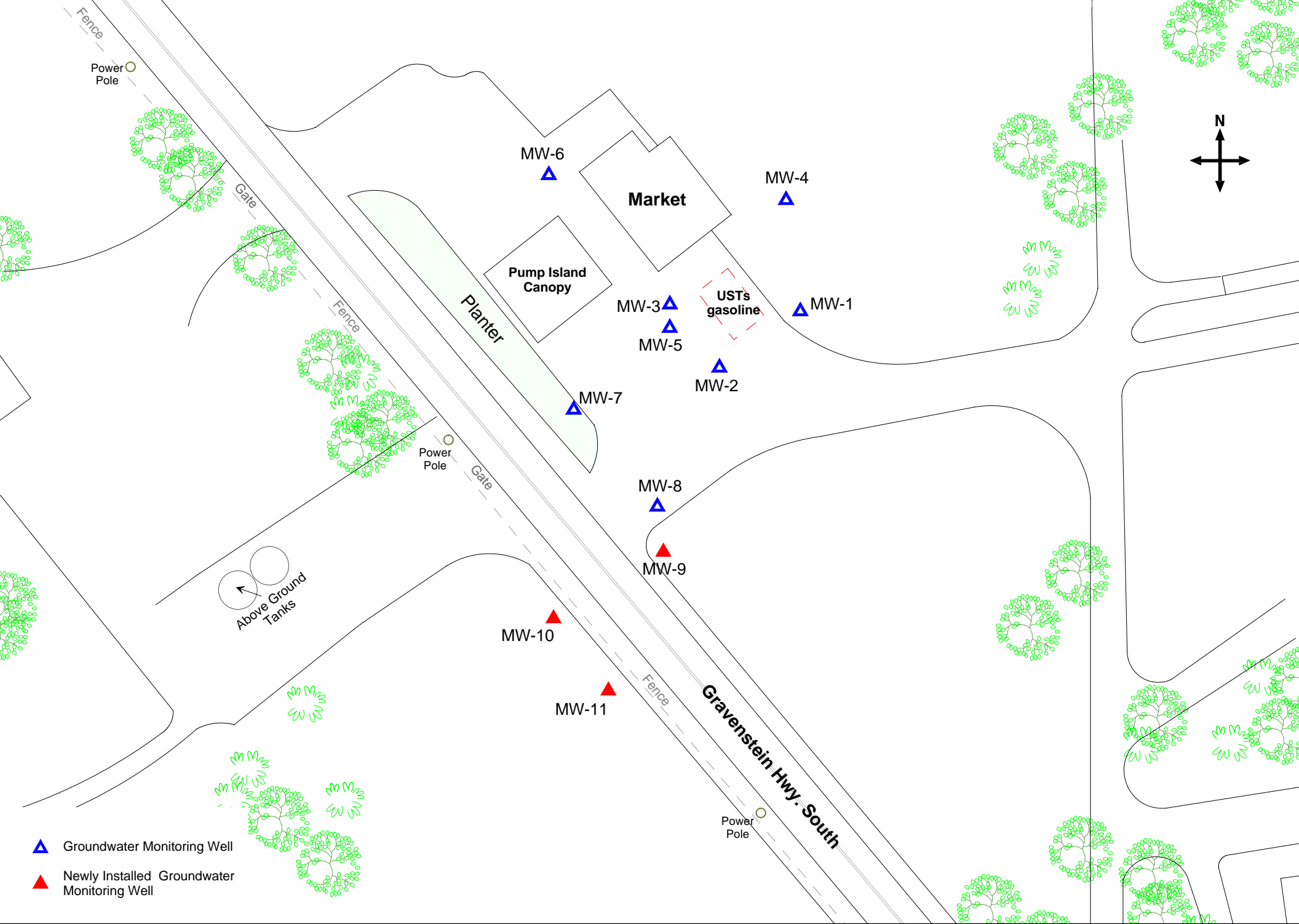


Figure 2: Site map showing the locations of groundwater monitoring wells.

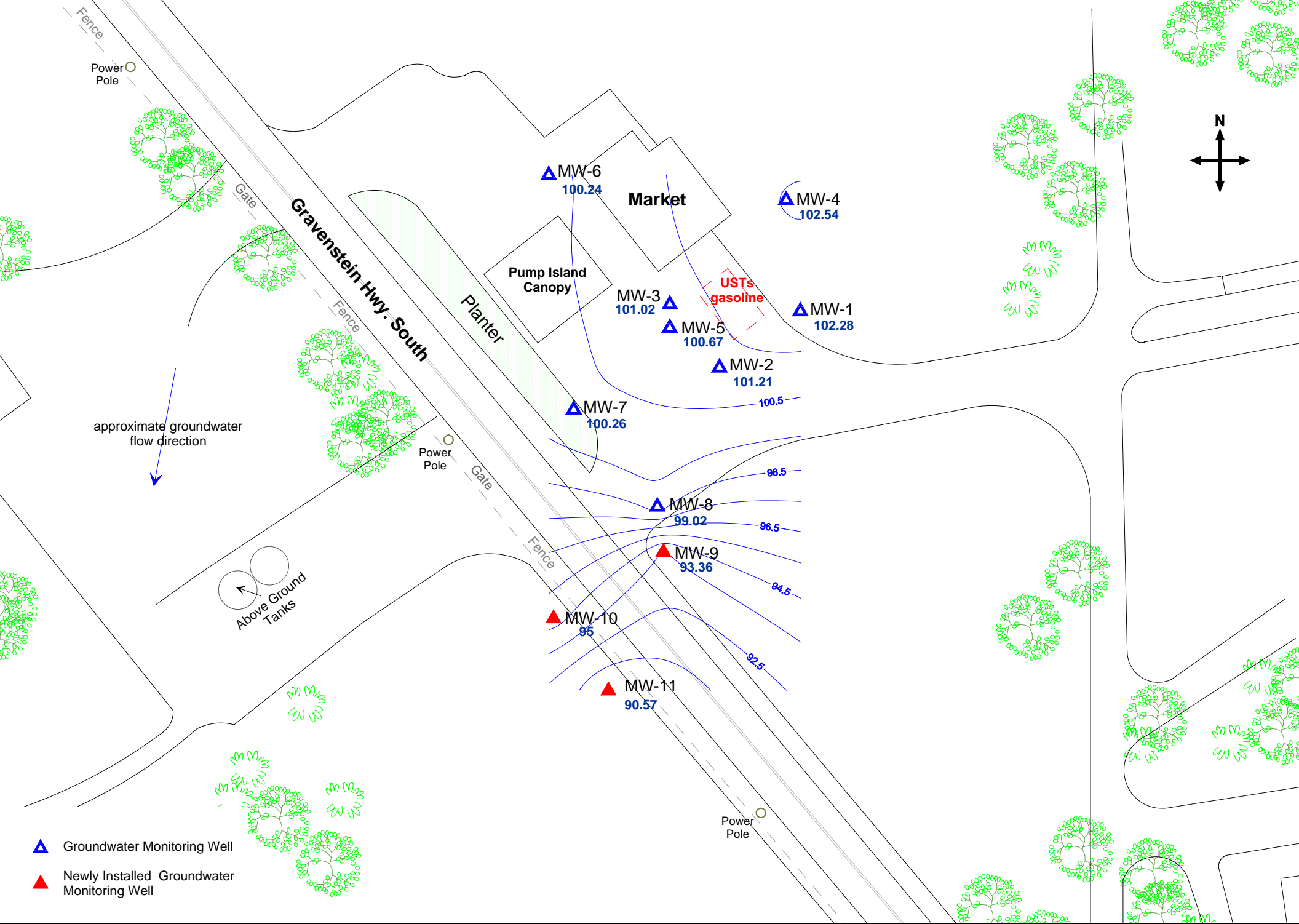


Figure 3: Groundwater Elevation Contour Map (SOMA 2006)

# Appendix A

APPLICATION FOR MONITORING WELL PERMIT  
for Regional Board Lead/Environmental Assessment

Site ID # \_\_\_\_\_ Permit # \_\_\_\_\_

Well type: ☒ Monitoring well ☐ Recovery extraction well ☐ Boring ☐ Injection well  
☐ Soil gas survey ☐ Hydropunch ☐ Air sparging/venting ☐ Other \_\_\_\_\_

Well depth 25-30 Boring depth 25-30 Hydro depth \_\_\_\_\_ Air sparging/venting depth \_\_\_\_\_

# On-site well/boring \_\_\_\_\_ ID # \_\_\_\_\_ # Off-site well/boring 2 ID # WY2-9, 10, 11

Submit legal right-of-entry/off-site well address/encroachment permit

On-site Address 3705 Greenwood Ave, Santa Rosa, CA 95412

On-site Owner WHS Environmental Phone 707-261-6616

Address 1772 Greenwood Ave, Santa Rosa, CA AP# \_\_\_\_\_

Responsible Party WHS Environmental Phone \_\_\_\_\_

Address \_\_\_\_\_

Consultant Sonoma Environmental Phone 707-734-6410

Address 1400 Avenue of the Geologists, CA 95408 License #/Type \_\_\_\_\_

Drilling Contractor Sonoma Drilling/Terrestrial Phone 707-261-6616

Address 1500 1st St, Santa Rosa, CA C-57 License # 4005405

Type of work: ☐ Initial investigation \_\_\_\_\_ # Wells ☐ Subsequent investigation 3 # Wells ☐ Destruct \_\_\_\_\_ # Wells

Groundwater investigation due to: ☒ Underground tank ☐ Surface impoundment ☐ Assessment  
☐ Surface disposal practice—specify involved industry \_\_\_\_\_  
☐ Other \_\_\_\_\_

Perforated intervals \_\_\_\_\_ Chemical constituents \_\_\_\_\_

Disposal method for soil cuttings \_\_\_\_\_ Disposal method for development water \_\_\_\_\_

Drilling method \_\_\_\_\_ Method of drill equip. rinsate containment \_\_\_\_\_

If destroying a well, abandonment method \_\_\_\_\_

Submit plot plan of wells in relation to all sewer or septic lines.

Is well to be constructed within: 100 feet of a septic tank or leachfield? ☐ Yes ☐ No  
50 feet of any sanitary sewer line? ☐ Yes ☒ No  
25 feet of any private sanitary sewer line? ☐ Yes ☐ No

In addition, all monitoring wells must include **identification system** affixed to interior surface:  
1) Well identification 2) Well type 3) Well depth 4) Well casing diameter 5) Perforated intervals

Well identification number and well type shall be **affixed** to the **exterior surface** security structure.

RWQCB approval \_\_\_\_\_ Date \_\_\_\_\_

**For Office Use Only**

Address \_\_\_\_\_

Site ID# \_\_\_\_\_

Permit # \_\_\_\_\_

I hereby agree to comply with all laws and regulations of the County of Sonoma and State of California pertaining to water well construction. I will telephone (707) 565-6565, 48 hours in advance, to notify the Environmental Health Specialist when completing or destroying a well. I will furnish the Director of Health Services and the owner a legible copy of the State Water Well Driller's Report within 15 days; and a copy of the Summary Report, including sample results, should be received by this Department within 90 days in order to obtain final approval on this well permit. I acknowledge that the application will become a permit **only** after site approval and payment of fee. I understand that this permit is not transferable and expires one year from date of issuance.

\_\_\_\_\_  
Signature of Well Driller—**no proxies** Date \_\_\_\_\_

Insurance Carrier \_\_\_\_\_ Expiration Date \_\_\_\_\_

Once all wells/borings are installed, submit a Well Driller's Log and/or Summary Report to complete permit process.

Indicate on attached plot plan the exact location of well(s) with respect to the following items: property lines, water bodies or water courses drainage pattern, roads, existing wells, sewer main and laterals and private sewage disposal systems or other sources of contamination or pollution. **INCLUDE DIMENSIONS.** The validity of this permit depends upon the accuracy of the information provided by the applicant.

Conditions of permit:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

❖ ❖

**FOR OFFICE USE ONLY – ENVIRONMENTAL HEALTH DIVISION**

Permit approved by \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Constr. approved by \_\_\_\_\_ Observed? [ ] Yes [ ] No Well # \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

RWQCB / LOP approval \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

October 18, 2005



Ms. Ann E. Hazen  
AEH – California - LLC  
20 Spring Lane  
Tiburon, California 94920

Re: Site Access Agreement for Groundwater Investigation

Dear Ms. Hazen:

Per Sonoma County Department of Environmental Health, SOMA Environmental Engineering, Inc. (SOMA) is conducting an environmental study at the gasoline service station located at 3705 Gravenstein Hwy. South, in Sebastopol, California. The scope of this investigation is to assess the extent of petroleum hydrocarbon plume which is emanating from the gasoline service station located up-gradient from your property at 3790 Gravenstein Hwy. South. As such, SOMA is planning to install two groundwater monitoring wells inside your property. Upon your request, a copy of SOMA's report, including the result of this investigation will be forwarded to your attention.

The locations of the two proposed monitoring wells can be seen on the included site map labeled as MW-10 and MW-11. The wells are flush with the ground surface and approximately 8 inches in diameter, covered with a bolted metal plate. After installation of the groundwater monitoring wells SOMA will collect groundwater samples on a quarterly basis to confirm that the contamination plume is not migrating onto your property. At the conclusion of this investigation the groundwater monitoring wells, per Sonoma County's guidelines, will be properly decommissioned.

Your cooperation on this Sonoma County mandated program is highly appreciated. Thank you for taking the time to review this matter. Please fax back the signature page to SOMA at 925-734-6401 and return original in the enclosed self-addressed envelope. Please do not hesitate to call me at (925) 734-6400, if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Mansour Sepehr", is written over a horizontal line.

Mansour Sepehr, Ph.D., PE  
Principal Hydrogeologist

Enclosures



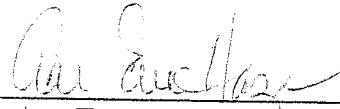
Dated: 10-18-05

SOMA Environmental Engineering, Inc.

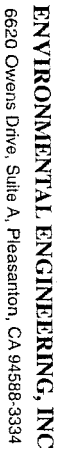


Mansour Sepehr  
Principal Hydrogeologist

Dated: \_\_\_\_\_



Ms. Ann E. Hazen

[illegible][illegible]

**\$0.370**

OCT 21 2005  
US POSTAGE  
FIRST-CLASS MAIL  
MAILED FROM 94583

0625000(0)716353

# Appendix B

PROJECT: 2872

DATE DRILLED: 12/20/2005

SITE LOCATION: 3705 Gravenstein Hwy, Sebastopol

CASING ELEVATION: 100.76'

DRILLER: Gregg Drilling and Testing

DEPTH TO GW: NA

DRILLING METHOD: Hollow Stem Auger (HSA)

T.O.C. TO SCREEN: 10'

BORING DIAMETER: 8"

SCREEN LENGTH: 15'

LOGGED BY: J Lohman

APPROVED BY: M Sepehr Ph. D., P.E.

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
	0			Hand auger borehole to 5 feet below ground surface (bgs)	Hand Augered to 5'			
	5		SC	CLAYEY SAND: white/tan; wet to saturated; fine grained; well sorted; pockets of green color; no petroleum hydrocarbon (PHC) odor; high estimated permeability (HEK).				
	0		SC/CL	CLAYEY SAND/SANDY CLAY: tan; wet; very firm; no plasticity; no PHC odor; MEK-HEK.				
	0		SM	SILTY SAND: tan mottled brown; wet to saturated; fine grained; well sorted; no PHC odor; HEK.				
	15							
	0							
	20							
	0							
	25							

COMMENTS: TD @ 25'

PROJECT: 2872

DATE DRILLED: 12/20/2005

SITE LOCATION: 3705 Gravenstein Hwy, Sebastopol

CASING ELEVATION: 98.95'

DRILLER: Gregg Drilling and Testing

DEPTH TO GW: NA

DRILLING METHOD: Hollow Stem Auger (HSA)

T.O.C. TO SCREEN: 10'

BORING DIAMETER: 8"

SCREEN LENGTH: 15'

LOGGED BY: J Lohman

APPROVED BY: M Sepehr Ph. D., P.E.

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
0	0			Hand auger borehole to 5 feet below ground surface (bgs)	Hand Augered to 5'			
	5		SM	SILTY SAND: white/tan; saturated; well sorted; medium to fine grained; no petroleum hydrocarbon (PHC) odor; high estimated permeability (HEK).				
0	0			(8-12) increase in fine sand				
10	10							
0	0							
15	15							
0	0							
20	20				No Recovery			
0	0							
25	25							

COMMENTS: TD @ 25'

PROJECT: 2872

DATE DRILLED: 12/20/2005

SITE LOCATION: 3705 Gravenstein Hwy, Sebastopol

CASING ELEVATION: 98.17'

DRILLER: Gregg Drilling and Testing

DEPTH TO GW: NA

DRILLING METHOD: Hollow Stem Auger (HSA)

T.O.C. TO SCREEN: 10'

BORING DIAMETER: 8"

SCREEN LENGTH: 15'

LOGGED BY: J Lohman

APPROVED BY: M Sepehr Ph. D., P.E.

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
	0			Hand auger borehole to 5 feet below ground surface (bgs)	Hand Augered to 5'				
	5		SM	SILTY SAND: white/tan; saturated; well sorted; medium to fine grained; no petroleum hydrocarbon (PHC) odor; high estimated permeability (HEK).					
	0			(8-12) increase in fine sand					
	10								
	0								
	15								
	0								
	20								
	0								
	25								

COMMENTS: TD @ 25'

# Appendix C



ENVIRONMENTAL ENGINEERING, INC.

Well No.: WW-9  
Casing Diameter: 2 inches  
Depth of Well: 29.55 feet  
Top of Casing Elevation: \_\_\_\_\_ feet  
Depth to Groundwater: 12.4 feet  
Groundwater Elevation: \_\_\_\_\_ feet  
Water Column Height: \_\_\_\_\_ feet  
Purged Volume: \_\_\_\_\_ gallons

Project No.: 2872  
Address: 3705 Gravenstein Hwy, South  
Sebastopol, CA  
Date: February 3, 2006  
Sampler: Eric Jennings  
John Lohman

Purging Method: Bailer ☐ Pump ☒

Sampling Method: Bailer ☒ Pump ☐

Color: No ☐ Yes ☒ Describe: SLIGHTLY TURBID / CLOUDY

Sheen: No ☒ Yes ☐ Describe: \_\_\_\_\_

Odor: No ☒ Yes ☐ Describe: \_\_\_\_\_

#### Field Measurements:

Time	Vol	pH	Temp	E.C.
	(gallons)		(°C)	(µS/cm)
12:19	START	DEVELOPMENT		
12:20	1	6.21	17.62	2180
12:25	19	6.21	18.07	2370
12:30	21	6.32	18.60	1760
12:40	28	6.24	18.75	1780
12:45	34	6.19	18.59	1790
12:50	41	6.07	18.67	1630
12:55	42	6.05	18.65	1760

NOTE: 11:55 PM - 12:00 AM TO REMOVE SEDIMENTS  
12:05 PM - 12:10 PM SURGE FILTER BACK  
12:10 PM SAMPLED





ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-16  
Casing Diameter: 2 inches  
Depth of Well: 24.84 feet  
Top of Casing Elevation: \_\_\_\_\_ feet  
Depth to Groundwater: ~6.2 feet  
Groundwater Elevation: \_\_\_\_\_ feet  
Water Column Height: \_\_\_\_\_ feet  
Purged Volume: \_\_\_\_\_ gallons

Project No.: 2872  
Address: 3705 Gravenstein Hwy, South  
Sebastopol, CA  
Date: February 3, 2006  
Sampler: Eric Jennings  
John Lohman

Purging Method: Bailer ☐ Pump ☒

Sampling Method: Bailer ☒ Pump ☐

Color: No ☐ Yes ☒ Describe: slightly silty/cloudy (6-8 cu)

Sheen: No ☒ Yes ☐ Describe: \_\_\_\_\_

Odor: No ☒ Yes ☐ Describe: \_\_\_\_\_

#### Field Measurements:

Time	Vol	pH	Temp (°C)	E.C. (µS/cm)
	(gallons)			
9:15	START DEVELOPMENT			
9:20	7	6.68	16.65	1090
9:25	15	6.15	16.84	1070
9:30	22	6.11	16.94	1050
9:35	23	5.96	17.04	1060
9:40	25	5.87	17.09	1060
9:45	42	5.80	17.10	1050
9:50	45	5.82	17.10	1050

9:55 60-90' HOLE TO REMOVE SEDIMENTS (APPROX 2-4")  
9:55 90' SYRINGE FILTER PACK  
9:55 SAMPLED



Well No.: WW-11  
 Casing Diameter: 2 inches  
 Depth of Well: 24 feet  
 Top of Casing Elevation: \_\_\_\_\_ feet  
 Depth to Groundwater: ~ 0.8 feet  
 Groundwater Elevation: \_\_\_\_\_ feet  
 Water Column Height: \_\_\_\_\_ feet  
 Purged Volume: \_\_\_\_\_ gallons

Project No.: 2872  
 Address: 3705 Gravenstein Hwy, South  
 Sebastopol, CA  
 Date: February 3, 2006  
 Sampler: Eric Jennings  
 John Lohman

Purging Method: Bailer ☐ Pump ☒  
 Sampling Method: Bailer ☒ Pump ☐

Color: No ☐ Yes ☒  
 Sheen: No ☒ Yes ☐  
 Odor: No ☒ Yes ☐

Describe: slight 'smell' (P-16) → CLEAR (P-16)  
 Describe: ALTERNATES BTL. 15% ALZ AND 25% ALZ EVERY 2-4 GALLONS  
 Describe: \_\_\_\_\_

#### Field Measurements:

Time	Vol	pH	Temp (°C)	E.C. (µS/cm)
	(gallons)			
<u>11:00</u>	<u>start</u>	<u>development</u>		
<u>11:01</u>	<u>4</u>	<u>6.17</u>	<u>16.61</u>	<u>1600</u>
<u>11:02</u>	<u>8</u>	<u>6.13</u>	<u>16.77</u>	<u>1500</u>
<u>11:03</u>	<u>12</u>	<u>6.11</u>	<u>16.88</u>	<u>1300</u>
<u>11:04</u>	<u>16</u>	<u>6.07</u>	<u>16.89</u>	<u>1500</u>
<u>11:05</u>	<u>20</u>	<u>6.07</u>	<u>16.89</u>	<u>1300</u>
<u>11:06</u>	<u>24</u>	<u>6.03</u>	<u>16.95</u>	<u>1300</u>
<u>11:07</u>	<u>28</u>	<u>6.05</u>	<u>16.97</u>	<u>1300</u>
<u>11:08</u>	<u>32</u>	<u>6.03</u>	<u>16.97</u>	<u>1290</u>
<u>11:09</u>	<u>36</u>	<u>5.98</u>	<u>16.99</u>	<u>1270</u>
<u>11:10</u>	<u>39</u>	<u>5.96</u>	<u>16.96</u>	<u>1260</u>

NOTES: P-16 - MONITOR TO REMOVE SEDIMENTS (approx. 4 gal)  
 P-16 - 10% CURED FILTER PAPER  
 P-16 - SAMPLED

# Appendix D

**Harrington Surveys Inc.**  
**Land Surveying & Mapping**

2278 Larkey Lane, Walnut Creek, Ca. 94597 Phone (925)935-7228 Fax (925)935-5118  
Cell (925)788-7359 E-Mail (ben5132@pacbell.net)

SOMA ENVIRONMENTAL ENGINEERING  
6620 OWENS DR. # A  
PLEASANTON, CA. 994588

FEB. 22, 2006

ATTN: ELENA

3705 GRAVENSTEIN HWY. S.  
SEBASTOPOL CA.

**SURVEY REPORT**

CONTROLLING POINTS FROM SURVEY BY HARRINGTON SURVEYS INC., DATED 02-22-06

CONTROL PT.# RTCM-Ref 00001, CALIFORNIA COORDINATE SYSTEM, ZONE 2, NAD 83.

NORTH 1,923,182.24 - EAST 6,347,713.99, LAT. N38°26'26.398182" LONG. W122°44'49.151219".

ELEVATION 141.99, NGVD 88,

CONTROL PT. # BM37 M, CALIFORNIA COORDINATE SYSTEM, ZONE 2, NAD 83.

NORTH 1,908,814.18 - EAST 6,325,739.51 LAT N38°24'02.495544", LONG. W122°49'23.696136".

ELEVATION 80.79, NGVD 88,

**INSTRUMENTATION:**

TRIMBLE GPS, MODEL 5800 AND LEICA TCA 1800, 1" HORZ. & VERT.

OBSERVATION: EPOCH = 180.

FIELD SURVEY: FEB. 22, 2006.

BEN HARRINGTON  
PLS 5132



3705 GRAVENSTEIN HWY S  
SEBASTOPOL, CA  
MONITORING WELLS

HARRINGTON SURVEYS INC.  
2278 LARKEY LANE  
WALNUT CREEK CA. 94597

JOB # 2626  
FEB. 22, 2006

DESCRIPTION	NORTH	EAST	ELEV.	LATITUDE °' " N.	LONGITUDE °' " W.	LATITUDE DEC. ° N.	LONGITUDE DEC. ° W.
BM37 M	1808814.18	6325739.51	80.79	38 24 2.495544 N	122 49 23.696136 W	38.406932067 N	122.823248927 W
MW 1 NOTCH	1895108.56	6338406.62	104.32	38 21 48.121599 N	122 46 43.105958 W	38.363367111 N	122.778640544 W
MW 1 PAV	1895107.90	6338406.95	104.62	38 21 48.115126 N	122 46 43.101680 W	38.363366513 N	122.761972689 W
MW 1 PUNCH	1895108.72	6338406.51	104.52	38 21 48.123127 N	122 46 43.107264 W	38.363367535 N	122.778640907 W
MW 2 NOTCH	1895082.79	6338370.10	103.56	38 21 47.863738 N	122 46 43.561694 W	38.363295483 N	122.778767137 W
MW 2 PAV	1895083.51	6338370.11	103.72	38 21 47.870913 N	122 46 43.561599 W	38.363297476 N	122.778767111 W
MW 2 PUNCH	1895082.94	6338369.77	103.71	38 21 47.865221 N	122 46 43.565746 W	38.363295895 N	122.778768263 W
MW 3 NOTCH	1895110.21	6338351.89	103.22	38 21 48.133241 N	122 46 43.793237 W	38.363370345 N	122.778831455 W
MW 3 PAV	1895110.38	6338351.59	103.48	38 21 48.134958 N	122 46 43.797017 W	38.363370822 N	122.778832505 W
MW 3 PUNCH	1895110.37	6338351.77	103.49	38 21 48.134865 N	122 46 43.794709 W	38.363370796 N	122.778831864 W
MW 4 NOTCH	1895155.10	6338400.94	104.78	38 21 48.581128 N	122 46 43.182262 W	38.363494758 N	122.778661739 W
MW 4 PAV	1895154.46	6338400.78	104.97	38 21 48.574778 N	122 46 43.184230 W	38.363492994 N	122.778662286 W
MW 4 PUNCH	1895155.31	6338400.84	105.02	38 21 48.583234 N	122 46 43.183472 W	38.363495343 N	122.778662076 W
MW 5 NOTCH	1895100.08	6338350.97	102.98	38 21 48.033062 N	122 46 43.803686 W	38.363342517 N	122.778834357 W
MW 5 PAV	1895099.78	6338350.09	103.47	38 21 48.029976 N	122 46 43.814682 W	38.363341660 N	122.778837412 W
MW 5 PUNCH	1895100.23	6338350.73	103.44	38 21 48.034486 N	122 46 43.806679 W	38.363342913 N	122.778835189 W
MW 6 NOTCH	1895166.15	6338293.98	102.16	38 21 48.681278 N	122 46 44.526314 W	38.363622267 N	122.779035087 W
MW 6 PAV	1895165.38	6338294.38	102.45	38 21 48.673746 N	122 46 44.521152 W	38.363520485 N	122.779033653 W
MW 6 PUNCH	1895168.50	6338293.71	102.41	38 21 48.684713 N	122 46 44.529758 W	38.363523531 N	122.779036044 W
MW 7 NOTCH	1895068.22	6338308.09	101.86	38 21 47.694705 N	122 46 44.338438 W	38.363248529 N	122.778982899 W
MW 7 PAV	1895065.57	6338308.29	102.23	38 21 47.688353 N	122 46 44.335838 W	38.363246765 N	122.778982177 W
MW 7 PUNCH	1895066.37	6338307.93	102.14	38 21 47.696173 N	122 46 44.340430 W	38.363248937 N	122.778983453 W
MW 8 NOTCH	1895017.00	6338346.08	101.23	38 21 47.211430 N	122 46 43.856079 W	38.363114286 N	122.778848911 W
MW 8 PAV	1895017.30	6338346.51	101.53	38 21 47.214393 N	122 46 43.850759 W	38.363115109 N	122.778847433 W
MW 8 PUNCH	1895017.22	6338345.88	101.46	38 21 47.213542 N	122 46 43.858869 W	38.363114873 N	122.778849630 W
MW 9 NOTCH	1894997.31	6338349.41	100.76	38 21 47.017098 N	122 46 43.812267 W	38.363060305 N	122.778836741 W
MW 9 PAV	1894996.74	6338350.16	101.06	38 21 47.011531 N	122 46 43.802750 W	38.363058759 N	122.778834097 W
MW 9 PUNCH	1894997.58	6338349.21	101.12	38 21 47.019752 N	122 46 43.814754 W	38.363081042 N	122.778837432 W
MW 10 NOTCH	1894963.64	6338292.64	98.95	38 21 46.679447 N	122 46 44.521269 W	38.362966513 N	122.779033686 W
MW 10 PAV	1894962.90	6338292.78	99.23	38 21 46.672103 N	122 46 44.519462 W	38.362964473 N	122.779033184 W
MW 10 PUNCH	1894964.17	6338292.48	99.31	38 21 46.684632 N	122 46 44.523328 W	38.362967953 N	122.779034258 W
MW 11 NOTCH	1894934.05	6338313.45	98.17	38 21 46.388738 N	122 46 44.256813 W	38.362885761 N	122.778960226 W
MW 11 PAV	1894933.23	6338313.54	98.48	38 21 46.380599 N	122 46 44.255689 W	38.362883500 N	122.778959908 W
MW 11 PUNCH	1894934.42	6338313.23	98.52	38 21 46.392358 N	122 46 44.259710 W	38.362886768 N	122.778961031 W
RTCM-Ref 0001	1923182.24	6347713.99	141.99	38 26 26.398182 N	122 44 48.151219 W	38.440666162 N	122.7469886450 W

# Appendix E



851 West Midway Ave. Suite 201  
Alameda, CA 94501

**Pacific Analytical Laboratory**

Phone (510) 864-0364

21 February 2006

Mansour Sepehr  
SOMA Environmental Engineering Inc.  
6620 Owens Drive, Suite A  
Pleasanton, CA 94588

RE: 3705 Gravenstein Hwy, Sebastopol

Work Order Number: 6020005

This Laboratory report has been reviewed for technical correctness and completeness. This entire report was reviewed and approved by the Laboratory Director or the Director's designee, as verified by the following signature.

Sincerely,

A handwritten signature in black ink, appearing to read 'Maiid Akhavan', is written over a horizontal line.

Maiid Akhavan  
Laboratory Director



SOMA Environmental Engineering Inc.  
6620 Owens Drive, Suite A  
Pleasanton CA, 94588

Project: 3705 Gravenstein Hwy, Sebastopol  
Project Number: 2872  
Project Manager: Mansour Sepehr

**Reported:**  
21-Feb-06 10:55

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-9	6020005-01	Water	03-Feb-06 12:57	03-Feb-06 15:55
MW-10	6020005-02	Water	03-Feb-06 09:58	03-Feb-06 15:55
MW-11	6020005-03	Water	03-Feb-06 11:46	03-Feb-06 15:55





SOMA Environmental Engineering Inc.  
6620 Owens Drive, Suite A  
Pleasanton CA, 94588

Project: 3705 Gravenstein Hwy, Sebastopol  
Project Number: 2872  
Project Manager: Mansour Sepehr

**Reported:**  
21-Feb-06 10:55

### Volatile Organic Compounds by EPA Method 8260B

#### Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-9 (6020005-01) Water    Sampled: 03-Feb-06 12:57    Received: 03-Feb-06 15:55</b>									
Gasoline (C6-C12)	ND	50.0	ug/l	1	BB61701	06-Feb-06	17-Feb-06	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
<b>MTBE</b>	<b>0.910</b>	0.500	"	"	"	"	"	"	
DIPE	ND	0.500	"	"	"	"	"	"	
ETBE	ND	0.500	"	"	"	"	"	"	
TAME	ND	2.00	"	"	"	"	"	"	
TBA	ND	10.0	"	"	"	"	"	"	
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	
Ethanol	ND	1000	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.6 %		70-130	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		103 %		70-130	"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		100 %		70-130	"	"	"	"	
<b>MW-10 (6020005-02) Water    Sampled: 03-Feb-06 09:58    Received: 03-Feb-06 15:55</b>									
Gasoline (C6-C12)	ND	50.0	ug/l	1	BB61701	06-Feb-06	17-Feb-06	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
MTBE	ND	0.500	"	"	"	"	"	"	
DIPE	ND	0.500	"	"	"	"	"	"	
ETBE	ND	0.500	"	"	"	"	"	"	
TAME	ND	2.00	"	"	"	"	"	"	
TBA	ND	10.0	"	"	"	"	"	"	
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	
Ethanol	ND	1000	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.2 %		70-130	"	"	"	"	

Pacific Analytical Laboratory

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



SOMA Environmental Engineering Inc.  
6620 Owens Drive, Suite A  
Pleasanton CA, 94588

Project: 3705 Gravenstein Hwy, Sebastopol  
Project Number: 2872  
Project Manager: Mansour Sepehr

**Reported:**  
21-Feb-06 10:55

### Volatile Organic Compounds by EPA Method 8260B

#### Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-10 (6020005-02) Water    Sampled: 03-Feb-06 09:58    Received: 03-Feb-06 15:55</b>									
<i>Surrogate: Dibromofluoromethane</i>		102 %	70-130		BB61701	06-Feb-06	17-Feb-06	EPA 8260B	
<i>Surrogate: Perdeuterotoluene</i>		100 %	70-130		"	"	"	"	
<b>MW-11 (6020005-03) Water    Sampled: 03-Feb-06 11:46    Received: 03-Feb-06 15:55</b>									
Gasoline (C6-C12)	ND	50.0	ug/l	1	BB61701	06-Feb-06	17-Feb-06	EPA 8260B	
Benzene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
m&p-Xylene	ND	1.00	"	"	"	"	"	"	
o-xylene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
<b>MTBE</b>	<b>0.920</b>	0.500	"	"	"	"	"	"	
DIPE	ND	0.500	"	"	"	"	"	"	
ETBE	ND	0.500	"	"	"	"	"	"	
TAME	ND	2.00	"	"	"	"	"	"	
TBA	ND	10.0	"	"	"	"	"	"	
1,2-dichloroethane	ND	0.500	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.500	"	"	"	"	"	"	
Ethanol	ND	1000	"	"	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.0 %	70-130		"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		102 %	70-130		"	"	"	"	
<i>Surrogate: Perdeuterotoluene</i>		100 %	70-130		"	"	"	"	



SOMA Environmental Engineering Inc.  
6620 Owens Drive, Suite A  
Pleasanton CA, 94588

Project: 3705 Gravenstein Hwy, Sebastopol  
Project Number: 2872  
Project Manager: Mansour Sepehr

**Reported:**  
21-Feb-06 10:55

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch BB61701 - EPA 5030 Water MS

##### Blank (BB61701-BLK1)

Prepared & Analyzed: 17-Feb-06

Surrogate: 4-Bromofluorobenzene	49.2		ug/l	50.0		98.4	70-130			
Surrogate: Dibromofluoromethane	50.7		"	50.0		101	70-130			
Surrogate: Perdeuterotoluene	50.2		"	50.0		100	70-130			
MTBE	ND	0.500	"							
DIPE	ND	0.500	"							
ETBE	ND	0.500	"							
TAME	ND	2.00	"							
Gasoline (C6-C12)	ND	50.0	"							
TBA	ND	10.0	"							
1,2-dichloroethane	ND	0.500	"							
1,2-Dibromoethane (EDB)	ND	0.500	"							
Ethanol	ND	1000	"							
Benzene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
m&p-Xylene	ND	1.00	"							
o-xylene	ND	0.500	"							
Toluene	ND	2.00	"							

##### LCS (BB61701-BS1)

Prepared & Analyzed: 17-Feb-06

Surrogate: 4-Bromofluorobenzene	48.6		ug/l	50.0		97.2	70-130			
Surrogate: Dibromofluoromethane	46.3		"	50.0		92.6	70-130			
Surrogate: Perdeuterotoluene	46.2		"	50.0		92.4	70-130			
MTBE	110	0.500	"	100		110	70-130			
ETBE	99.4	0.500	"	100		99.4	70-130			
TAME	93.4	2.00	"	100		93.4	70-130			
Gasoline (C6-C12)	2300	50.0	"	2000		115	70-130			
TBA	421	10.0	"	500		84.2	70-130			
Benzene	100	0.500	"	100		100	70-130			
Toluene	97.9	2.00	"	100		97.9	70-130			



SOMA Environmental Engineering Inc.  
6620 Owens Drive, Suite A  
Pleasanton CA, 94588

Project: 3705 Gravenstein Hwy, Sebastopol  
Project Number: 2872  
Project Manager: Mansour Sepehr

**Reported:**  
21-Feb-06 10:55

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Pacific Analytical Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch BB61701 - EPA 5030 Water MS**

**LCS Dup (BB61701-BSD1)**

Prepared & Analyzed: 17-Feb-06

Surrogate: 4-Bromofluorobenzene	48.1		ug/l	50.0		96.2	70-130			
Surrogate: Dibromofluoromethane	47.6		"	50.0		95.2	70-130			
Surrogate: Perdeuterotoluene	46.8		"	50.0		93.6	70-130			
MTBE	113	0.500	"	100		113	70-130	2.69	20	
ETBE	100	0.500	"	100		100	70-130	0.602	20	
TAME	95.9	2.00	"	100		95.9	70-130	2.64	20	
TBA	422	10.0	"	500		84.4	70-130	0.237	20	
Gasoline (C6-C12)	2160	50.0	"	2000		108	70-130	6.28	20	
Benzene	105	0.500	"	100		105	70-130	4.88	20	
Toluene	102	2.00	"	100		102	70-130	4.10	20	



SOMA Environmental Engineering Inc.  
6620 Owens Drive, Suite A  
Pleasanton CA, 94588

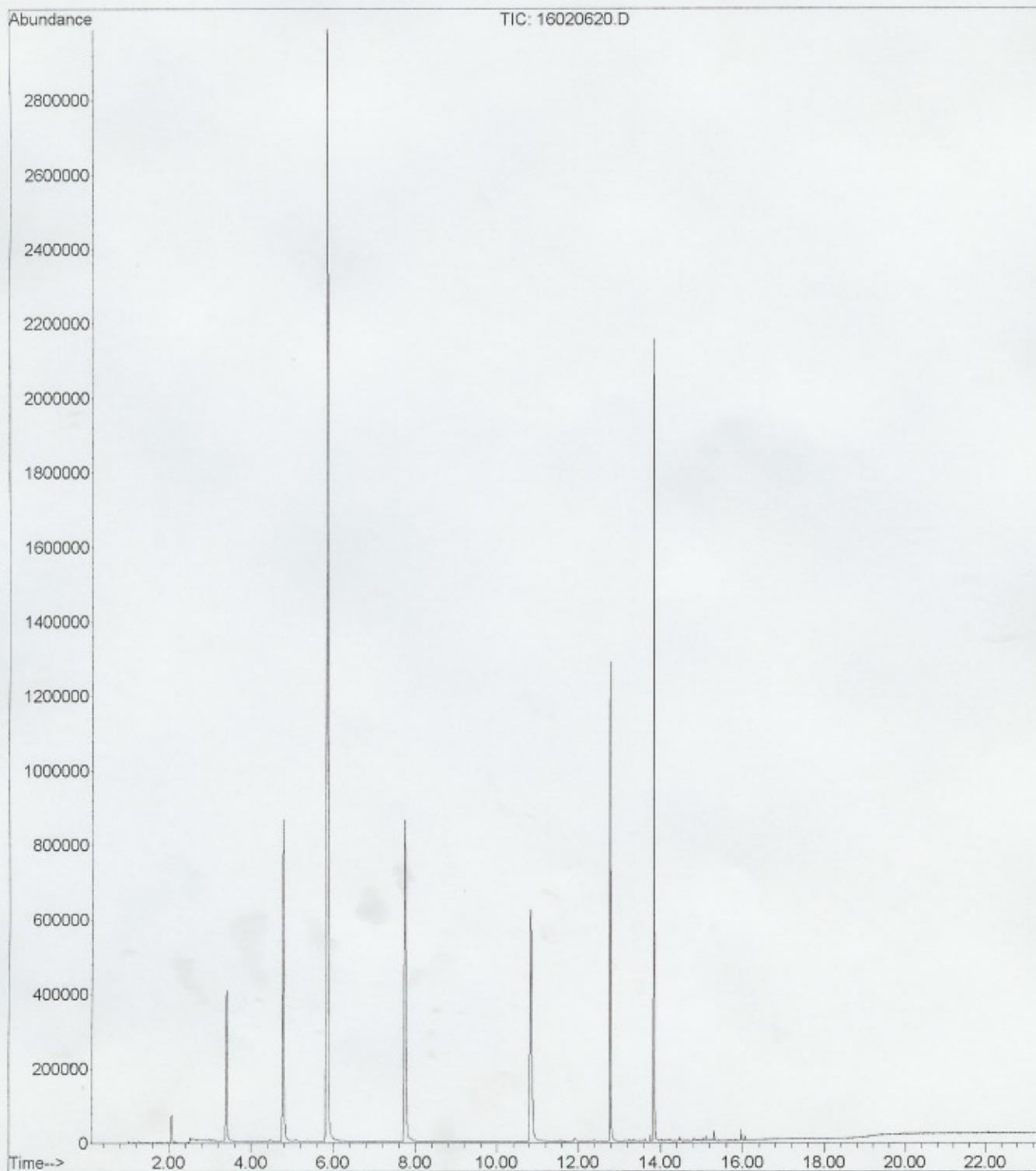
Project: 3705 Gravenstein Hwy, Sebastopol  
Project Number: 2872  
Project Manager: Mansour Sepehr

**Reported:**  
21-Feb-06 10:55

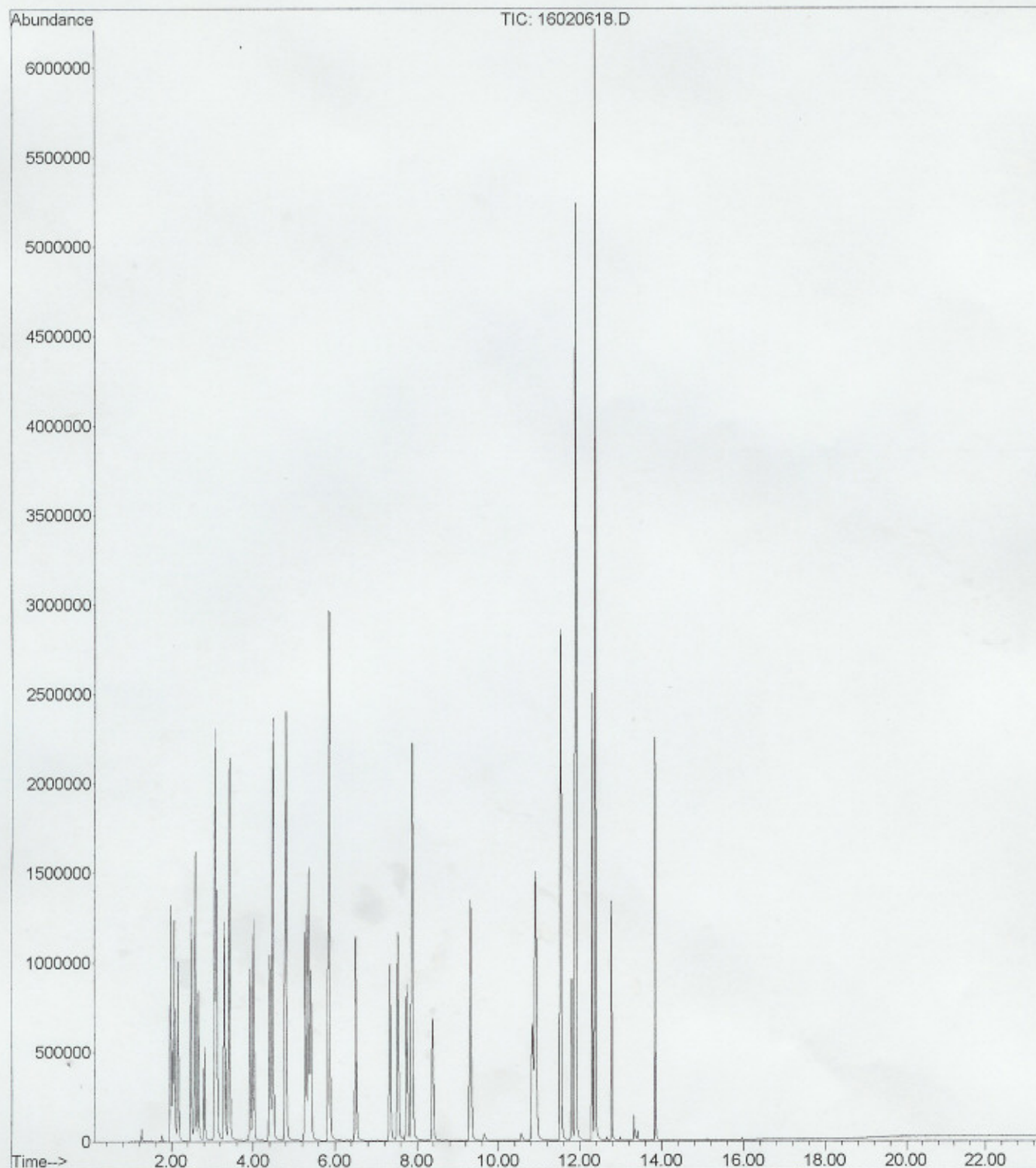
### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

File : C:\MSDChem\1\DATA\2006-Feb-16-1123.b\16020620.D  
Operator :  
Acquired : 16 Feb 2006 9:46 pm using AcqMethod OXY21506.M  
Instrument : PAL GCMS  
Sample Name: BB61701-BLK1  
Misc Info :  
Vial Number: 20

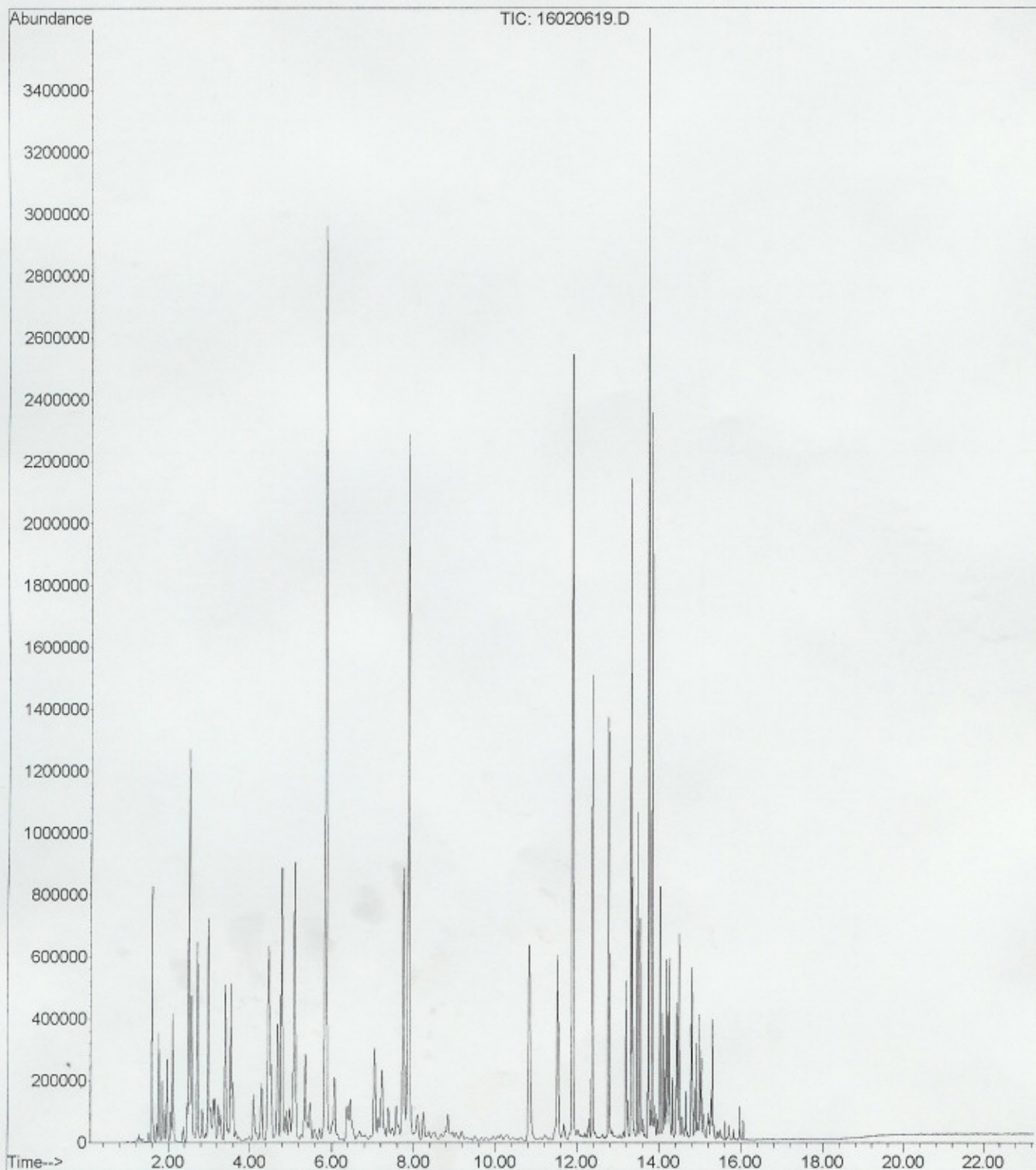


File :C:\MSDChem\1\DATA\2006-Feb-16-1123.b\16020618.D  
Operator :  
Acquired : 16 Feb 2006 8:43 pm using AcqMethod OXY21506.M  
Instrument : PAL GCMS  
Sample Name: BB61701-BS1@voc  
Misc Info :  
Vial Number: 18





File :C:\MSDCHEM\1\DATA\2006-Feb-16-1123.b\16020619.D  
Operator :  
Acquired : 16 Feb 2006 9:15 pm using AcqMethod OXY21506.M  
Instrument : PAL GCMS  
Sample Name: BB61701-BS1@gas  
Misc Info :  
Vial Number: 19





# CHAIN OF CUSTODY FORM

Page 1 of 1

Pacific Analytical Laboratory  
851 West Midway Ave., Suite 201B  
Alameda, CA 94501  
510-864-0364 Telephone  
510-864-0365 Fax

PAL Login# 6020005

Project No: 2871				Sampler: ERIC JENNINGS / JOHN LOHMAN				Analyses/Method									
Project Name: 3705 GRAVENSTEIN HWY. SEBASTOPOL				Report To: <del>Tony Perini</del> JOYCE BOBEK				TPH-g / STEL / MMBE (8260) GASOLINE OXYGENATES LEAD SCAVENGERS ETHANOL									
Project P.O.: ---				Company: SOMA Environmental Engineering, Inc.													
Turnaround Time: Standard				Tel: 925-244-6600 Fax: 925-244-6601													
		Sampling Date/Time		Matrix		# of Containers											
Lab No.	Sample ID	Date	Time	Water	Waste			HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE	Field Notes					
	MW-9	2/3/2006	12:57	X		4 Vials		X			X		X	X	X	X	
	MW-10	↓	9:53	↓		↓		↓			↓		↓	↓	↓	↓	
	MW-11	↓	11:46	↓		↓		↓			↓		↓	↓	↓	↓	
Sampler Remarks:						Relinquished by:		Date/Time:		Received by:		Date/Time:					
EDP REQUIRED GASOLINE OXYGENATES - TBA, DIP, ETBE, TAME LEAD SCAVENGERS - 1,2-DCA, EDB						Eric Jennings		2/3/2006 3:55pm		James Zing		2/3/06 3:55pm					